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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,431

05/02/2005

Hiromasa Sakai

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EXAMINER

KALAFUT, STEPHEN J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

02/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,431	Applicant(s) SAKAI, HIROMASA	
	Examiner Stephen J. Kalafut	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/2/2005, 11/17/2006, 2/28/2007</u> . | 6) <input type="checkbox"/> Other: ____. |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by either Kanai *et al.* (US 2001/0021468), Ueno *et al.* (US 2001/0001287) or Neutzler *et al.* (WO 00/65676), all cited by applicants.

Kanai *et al.* disclose a fuel cell system (section 0012) that includes a fuel cell (1) that has an electrolyte membrane (section 0010) and generates power using a fuel gas and oxidizing gas (section 0014), a storage device (4) for water that humidifies the fuel cell, and a controller (as indicated by the subroutines in figures 4 through 7). This controller would constitute the means for judging whether the fuel cell can be humidified and for limiting its operating temperature. Since the controller is claimed as a “means” for doing these things, it does not have to actually perform these functions in order to meet these parts of the claim.

Ueno *et al.* disclose a fuel cell system (1) that includes a fuel cell (2) that has an electrolyte membrane (section 0031) and generates power using a fuel gas and oxidizing gas (also in section 0031), a storage device (53) for water that humidifies the fuel cell, and a controller (151). This controller would constitute the means for judging whether the fuel cell can be humidified and for limiting its operating temperature. Since the controller is claimed as a “means” for doing these things, it does not have to actually perform these functions in order to meet these parts of the claim.

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Neutzler *et al.* disclose a fuel cell system (page 4, lines 17-19) that includes a fuel cell (10) that has an electrolyte membrane (12) and generates power using a fuel gas and oxidizing gas (page 12, lines 9-14), a storage device (64) for water that humidifies the fuel cell (page 19, line 22 through page 20, line 1), and a controller (page 8, line 22 through page 9, line 2). This controller would constitute the means for judging whether the fuel cell can be humidified and for limiting its operating temperature. Since the controller is claimed as a “means” for doing these things, it does not have to actually perform them in order to meet these parts of the claim.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mossman (US 2006/0228597) and Tanaka *et al.* (US 2003/0219638) disclose fuel cells with humidification systems.

The disclosure is objected to because of the following informalities: Drawing numerals 1a, 1e, 62, 119, 131, 132 and 141, in figures 1 and 18, are not found in the specification. Appropriate correction is required.

Claims 1-14 are allowed. The prior art cited either herein or by applicant does not disclose a fuel cell system with the present membrane, gas reactants, water storage and controller, where the controller functions to judge whether the fuel cell can be humidified and limiting its operating temperature to below normal when that judgment is negative. Although Kanai *et al.*, Ueno *et al.* and Neutzler *et al.* are indicated with an “X” in the International Search Report, these references do not disclose a controller that functions in the claimed manner.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286.

The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J. Kalafut/
Primary Examiner, Art Unit 1795